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EXAMINER

HANNAHER, CONSTANTINE

ART UNIT PAPER NUMBER

2878

DATE MAILED: 05/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/922,641

Applicant(s)

KAJIWARA ET AL.

Examiner

Constantine Hannaher

Art Unit

2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-54 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20, 22, 25-31, 33 and 36-54 is/are rejected.
- 7) ☒ Claim(s) 21, 23, 24, 32, 34 and 35 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Information Disclosure Statement

1. As set forth in MPEP § 609:

37 CFR 1.98(b) requires that each item of information in an IDS be identified properly. U.S. patents must be identified by the inventor, patent number, and issue date. U.S. patent application publications must be identified by the applicant, patent application publication number, and publication date. U.S. applications must be identified by the inventor, the eight digit application number (the two digit series code and the six digit serial number), and the filing date. If a U.S. application being listed in an IDS has been issued as a patent, the applicant should list the patent in the IDS instead of the application. Each foreign patent or published foreign patent application must be identified by the country or patent office which issued the patent or published the application, an appropriate document number, and the publication date indicated on the patent or published application. Each publication must be identified by publisher, author (if any), title, relevant pages of the publication, date and place of publication. The date of publication supplied must include at least the month and year of publication, except that the year of publication (without the month) will be accepted if the applicant points out in the information disclosure statement that the year of publication is sufficiently earlier than the effective U.S. filing date and any foreign priority date so that the particular month of publication is not in issue. The place of publication refers to the name of the journal, magazine, or other publication in which the information being submitted was published.

The requirement to identify U.S. applications by the inventor has been effective since November, 2000 so evidence of consideration of the applications referred to in the information disclosure statement submitted November 2, 2001 must be denied.

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Note the use of "The invention provides..." which can be implied.

3. The disclosure is objected to because of the following informalities: page 22, line 3, the name of the element is improperly set forth; page 52, lines 21-22, the references to Fig. 6 are improper.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 5 and 38 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5 recites the limitation "said bonding portion" in line 2 (actual count). There is insufficient antecedent basis for this limitation in the claim. There is no element established as part of the fiber plate of claim 1 that could correspond to any bonding "portion."

Claim 38 recites the limitation "said light guiding plane" in line 2 (actual count). There is insufficient antecedent basis for this limitation in the claim. There is no element established as part of the apparatus of claim 36 that could correspond to any "light guiding plane."

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-5, 7-12, 14-18, 25-29, 40, 43, 45, and 48 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Kusuyama *et al.* (WO00/36436A1).

With respect to independent claim 1, Kusuyama *et al.* discloses a fiber plate (Fig. 2) formed by arranging in mutually adjacent manner a plurality of individual fiber plates **12, 14, 16** of a same thickness so as to provide a light guiding plane (Fig. 1) larger in area than the light guiding plane of any individual one fiber plate, and wherein each of the individual fiber plates **12, 14, 16** is composed of a group of optical fibers having mutually parallel axes (page 3, line 20 to page 4, line 5) and lateral faces of the plurality of individual fiber plates **12, 14, 16** are mutually so bonded (with adhesive **24**, page 4, lines 10-16) that the axes of the optical fibers thereof become mutually parallel (Fig. 2).

With respect to dependent claim 2, the axis of the optical fiber in the fiber plate of Kusuyama *et al.* is parallel with respect to the normal line of the light guiding plane (Fig. 2).

With respect to dependent claim 3, at least either of the recited portions of the fiber plate of Kusuyama *et al.* have a polished surface (page 4, lines 17-25).

With respect to dependent claim 4, the lateral faces in the fiber plate of Kusuyama *et al.* are mutually bonded by adhesive material **24** (page 4, lines 10-16).

With respect to dependent claim 5, the element **24** in the fiber plate of Kusuyama *et al.* is a radiation intercepting bond (page 4, lines 10-16).

With respect to independent claim 7, Kusuyama *et al.* discloses a fiber plate (Fig. 2) formed by arranging in mutually adjacent manner a plurality of individual fiber plates **12, 14, 16** of a same thickness so as to provide a light guiding plane (Fig. 1) larger in area than the light guiding plane of any individual one fiber plate, and wherein each of the individual fiber plates **12, 14, 16** is composed of a group of optical fibers having axes parallel to the normal line to the light guiding plane (page 3,

line 20 to page 4, line 5) and lateral faces of the plurality of individual fiber plates **12, 14, 16** are mutually so bonded (with adhesive **24**, page 4, lines 10-16) that the axes of the optical fibers thereof become mutually parallel (Fig. 2). The front surface **a** and rear surface **b** of the fiber plate have the same area.

With respect to dependent claim 8, the lateral faces of the plural individual fiber plates in the fiber plate of Kusuyama *et al.* are mutually parallel (Fig. 2) and are bonded (with element **24**).

With respect to dependent claim 9, the peripheral surfaces of the individual fiber plates in the fiber plate of Kusuyama *et al.* are polished (page 4, lines 17-25). Accordingly, the light guiding plane is a polished surface.

With respect to dependent claim 10, the peripheral surfaces of the individual fiber plates in the fiber plate of Kusuyama *et al.* are polished (page 4, lines 17-25). Accordingly, any lateral face is a polished surface.

With respect to dependent claim 11, the lateral faces in the fiber plate of Kusuyama *et al.* are mutually bonded by adhesive material **24** (page 4, lines 10-16).

With respect to dependent claim 12, the element **24** in the fiber plate of Kusuyama *et al.* is a radiation intercepting bond (page 4, lines 10-16).

With respect to independent claim 14, Kusuyama *et al.* discloses a radiation image pickup apparatus (Fig. 1) provided with a wavelength converting member **18**, a photoelectric converting element **20**, and a fiber plate between them, with the fiber plate formed by arranging in mutually adjacent manner a plurality of individual fiber plates **12, 14, 16** of a same thickness so as to provide a light guiding plane (Fig. 1) larger in area than the light guiding plane of any individual one fiber plate, and wherein each of the individual fiber plates **12, 14, 16** is composed of a group of optical fibers having mutually parallel axes (page 3, line 20 to page 4, line 5) and lateral faces of the plurality of

individual fiber plates **12, 14, 16** are mutually so bonded (with adhesive **24**, page 4, lines 10-16) that the axes of the optical fibers thereof become mutually parallel (Fig. 2).

With respect to dependent claim 15, the axis of the optical fiber in the apparatus of Kusuyama *et al.* is parallel with respect to the normal line of the light guiding plane (Fig. 2).

With respect to dependent claim 16, at least either of the recited portions of the apparatus of Kusuyama *et al.* have a polished surface (page 4, lines 17-25).

With respect to dependent claim 17, the lateral faces in the apparatus of Kusuyama *et al.* are mutually bonded by adhesive material **24** (page 4, lines 10-16).

With respect to dependent claim 18, the element **24** in the apparatus of Kusuyama *et al.* is a radiation intercepting bond (page 4, lines 10-16).

With respect to independent claim 25, Kusuyama *et al.* discloses a radiation image pickup apparatus (Fig. 1) provided with a wavelength converting member **18**, a photoelectric converting element **20**, and a fiber plate between them, with the fiber plate formed by arranging in mutually adjacent manner a plurality of individual fiber plates **12, 14, 16** of a same thickness so as to provide a light guiding plane (Fig. 1) larger in area than the light guiding plane of any individual one fiber plate, and wherein each of the individual fiber plates **12, 14, 16** is composed of a group of optical fibers having mutually parallel axes (page 3, line 20 to page 4, line 5) and lateral faces of the plurality of individual fiber plates **12, 14, 16** are mutually so bonded (with adhesive **24**, page 4, lines 10-16) that the axes of the optical fibers thereof become mutually parallel (Fig. 2). The front surface **a** and rear surface **b** of the fiber plate have the same area.

With respect to dependent claim 26, the peripheral surfaces of the individual fiber plates in the apparatus of Kusuyama *et al.* are polished (page 4, lines 17-25). Accordingly, any lateral face is a polished surface.

With respect to dependent claim 27, the peripheral surfaces of the individual fiber plates in the apparatus of Kusuyama *et al.* are polished (page 4, lines 17-25). Accordingly, the light guiding plane is a polished surface.

With respect to dependent claim 28, the lateral faces in the apparatus of Kusuyama *et al.* are mutually bonded by adhesive material **24** (page 4, lines 10-16).

With respect to dependent claim 29, the element **24** in the apparatus of Kusuyama *et al.* is a radiation intercepting bond (page 4, lines 10-16).

With respect to independent claim 40, Kusuyama *et al.* discloses a method for producing the illustrated fiber plate (Fig. 2) in view of the plural individual fiber plates **12, 14, 16**, the mutually adjacent arrangement, and the bonding with element **24**.

With respect to dependent claim 43, the lateral faces in the fiber plate of Kusuyama *et al.* are mutually bonded by adhesive material **24** (page 4, lines 10-16).

With respect to independent claim 45, Kusuyama *et al.* discloses a method for producing the illustrated fiber plate (Fig. 2) in view of the preparation of plural individual fiber plates **12, 14, 16**, the mutually adjacent arrangement, and the bonding with element **24**.

With respect to dependent claim 48, the lateral faces in the fiber plate of Kusuyama *et al.* are mutually bonded by adhesive material **24** (page 4, lines 10-16).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 6, 51/1, 52/1, 53/1, 13, 51/7, 52/7, 53/7, 19, 20, 22, 54/14, 30, 31, 33, 54/25, 36-39, and 54/36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kusuyama *et al.* (WO0036436A1) and Sayag *et al.* (US005715292A).

With respect to dependent claim 6, although the lateral faces of the individual fiber plates **12**, **14**, **16** in the fiber plate of Kusuyama *et al.* include a face parallel to the normal line of the light guiding plane (Fig. 2) the use of a lateral face which crosses the normal line is known from Sayag *et al.* (column 7, lines 6-10). In view of the advantageous reduction in "dead space" suggested by Sayag *et al.* which is sought by Kusuyama *et al.* (page 4, line 26 to page 5, line 13) it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the fiber plate of Kusuyama *et al.* to have a sloping lateral face therein.

With respect to dependent claim 51/1, Kusuyama *et al.* discloses a method for producing a radiation image pickup apparatus which would comprise preparing a fiber plate of the scope of claim 1 as earlier explained. Although Kusuyama *et al.* shows minifiers **22**, Sayag *et al.* teaches that adhering the fiber plate **18b** to a photoelectric converting element **18a** (column 4, lines 24-27) is superior to the inclusion of a minifier (column 1, lines 35-55) so it would have been obvious to one of ordinary

skill in the art at the time the invention was made to modify the method of Kusuyama *et al.* to adhere the fiber plate to the photoelectric converting element **20**.

With respect to dependent claims 52/1 and 53/1, the method of Kusuyama *et al.* further includes a step of adhering a sheet-shaped wavelength converting member **18** (page 5, lines 14-25). It is entirely a choice within the ordinary skill in the art as to the sequence of adhering steps.

With respect to dependent claim 13, although the lateral faces of the individual fiber plates **12, 14, 16** in the fiber plate of Kusuyama *et al.* include a face parallel to the normal line of the light guiding plane (Fig. 2) the use of a lateral face which crosses the normal line is known from Sayag *et al.* (column 7, lines 6-10). In view of the advantageous reduction in "dead space" suggested by Sayag *et al.* which is sought by Kusuyama *et al.* (page 4, line 26 to page 5, line 13) it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the fiber plate of Kusuyama *et al.* to have a sloping lateral face therein.

With respect to dependent claim 51/7, Kusuyama *et al.* discloses a method for producing a radiation image pickup apparatus which would comprise preparing a fiber plate of the scope of claim 7 as earlier explained. Although Kusuyama *et al.* shows minifiers **22**, Sayag *et al.* teaches that adhering the fiber plate **18b** to a photoelectric converting element **18a** (column 4, lines 24-27) is superior to the inclusion of a minifier (column 1, lines 35-55) so it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Kusuyama *et al.* to adhere the fiber plate to the photoelectric converting element **20**.

With respect to dependent claims 52/7 and 53/7, the method of Kusuyama *et al.* further includes a step of adhering a sheet-shaped wavelength converting member **18** (page 5, lines 14-25). It is entirely a choice within the ordinary skill in the art as to the sequence of adhering steps.

With respect to dependent claim 19, although the lateral faces of the individual fiber plates **12, 14, 16** in the apparatus of Kusuyama *et al.* include a face parallel to the normal line of the light guiding plane (Fig. 2) the use of a lateral face which crosses the normal line is known from Sayag *et al.* (column 7, lines 6-10). In view of the advantageous reduction in "dead space" suggested by Sayag *et al.* which is sought by Kusuyama *et al.* (page 4, line 26 to page 5, line 13) it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Kusuyama *et al.* to have a sloping lateral face therein.

With respect to dependent claim 20, the width of the gap between mutually adjacent individual fiber plates **12, 14, 16** in the apparatus of Kusuyama *et al.* is set in the range of (10 to 15) μm (page 5, line 9) while Sayag *et al.* teaches that a typical photoelectric converting element of about 60 mm length to a side has a pixel width of 15 μm (column 4, line 31). Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made that the fiber plate gap in the apparatus of Kusuyama *et al.* was smaller than the pixel width therein.

With respect to dependent claim 22, the gap between mutually adjacent individual fiber plates **12, 14, 16** in the apparatus of Kusuyama *et al.* is positioned without any necessary relation to the gap between chips **20** of the photoelectric converting element. However, Fig. 6 of Sayag *et al.* shows that such a positioning is known. In view of the advantageous reduction in size of the apparatus and the minimum of dead space achieved by the suggestions of Sayag *et al.*, it would have been obvious to one of ordinary skill in the art to position the gaps in the apparatus of Kusuyama *et al.* on the gaps between chips **20**.

With respect to dependent claim 54/14, Sayag *et al.* shows (Fig. 4) that the recited elements of signal processing means **56**, recording means **62**, display means **58**, and radiation source **52** are entirely routine elements used in conjunction with a radiation image pickup system of whatever type,

and it would have taken no more than ordinary skill in the art to specify that the apparatus of Kusuyama *et al.* was to be used in such a system.

With respect to dependent claim 30, although the lateral faces of the individual fiber plates **12, 14, 16** in the apparatus of Kusuyama *et al.* include a face parallel to the normal line of the light guiding plane (Fig. 2) the use of a lateral face which crosses the normal line is known from Sayag *et al.* (column 7, lines 6-10). In view of the advantageous reduction in "dead space" suggested by Sayag *et al.* which is sought by Kusuyama *et al.* (page 4, line 26 to page 5, line 13) it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Kusuyama *et al.* to have a sloping lateral face therein.

With respect to dependent claim 31, the width of the gap between mutually adjacent individual fiber plates **12, 14, 16** in the apparatus of Kusuyama *et al.* is set in the range of (10 to 15) μm (page 5, line 9) while Sayag *et al.* teaches that a typical photoelectric converting element of about 60 mm length to a side has a pixel width of 15 μm (column 4, line 31). Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made that the fiber plate gap in the apparatus of Kusuyama *et al.* was smaller than the pixel width therein.

With respect to dependent claim 33, the gap between mutually adjacent individual fiber plates **12, 14, 16** in the apparatus of Kusuyama *et al.* is positioned without any necessary relation to the gap between chips **20** of the photoelectric converting element. However, Fig. 6 of Sayag *et al.* shows that such a positioning is known. In view of the advantageous reduction in size of the apparatus and the minimum of dead space achieved by the suggestions of Sayag *et al.*, it would have been obvious to one of ordinary skill in the art to position the gaps in the apparatus of Kusuyama *et al.* on the gaps between chips **20**.

With respect to dependent claim 54/25, Sayag *et al.* shows (Fig. 4) that the recited elements of signal processing means **56**, recording means **62**, display means **58**, and radiation source **52** are entirely routine elements used in conjunction with a radiation image pickup system of whatever type, and it would have taken no more than ordinary skill in the art to specify that the apparatus of Kusuyama *et al.* was to be used in such a system.

With respect to independent claim 36, Sayag *et al.* discloses a radiation image pickup apparatus (Fig. 5) formed by arranging a plurality of radiation image pickup units **18** with a wavelength converting member **18c**, photoelectric converting element **18a**, and fiber plate **18b** between them and wherein the lateral faces of the individual fiber plates **18b** are arranged that the axes of the optical fibers become mutually parallel. Although Sayag *et al.* does not describe a "bonding" the presence of a bonding in a radiation image pickup apparatus having the same elements **18**, **20**, and **12**, **14**, **16** is known from Kusuyama *et al.* in view of element **24**. In view of the increased ruggedness achievable through mutual bonding, affording better alignment between units, it would have been obvious to bond that lateral faces **18d** in the apparatus of Sayag *et al.*

With respect to dependent claim 37, the peripheral surfaces of the individual fiber plates in the apparatus of Kusuyama *et al.* are polished (page 4, lines 17-25). Accordingly, any lateral face is a polished surface. It would have been obvious to one of ordinary skill in the art to retain such a polish in any apparatus suggested by Sayag *et al.* and Kusuyama *et al.* in view of the improved optical quality achieved thereby.

With respect to dependent claim 38, the peripheral surfaces of the individual fiber plates in the apparatus of Kusuyama *et al.* are polished (page 4, lines 17-25). Accordingly, the light guiding plane is a polished surface. It would have been obvious to one of ordinary skill in the art to retain

such a polish in any apparatus suggested by Sayag *et al.* and Kusuyama *et al.* in view of the improved optical quality achieved thereby.

With respect to dependent claim 39, the areas of the wavelength converting member **18c**, the photoelectric converting element chip **18a**, and the individual fiber plate **18b** in the apparatus of Sayag *et al.* are the same (Fig. 6).

With respect to dependent claim 54/36, Sayag *et al.* shows (Fig. 4) that the recited elements of signal processing means **56**, recording means **62**, display means **58**, and radiation source **52** are entirely routine elements used in conjunction with the disclosed radiation image pickup system.

11. Claims 41, 42, 44, 46, 47, 49, and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kusuyama *et al.* (WO0036436A1).

With respect to dependent claims 41, 42, 44, 46, 47, and 49, and independent claim 50, the sequence of steps in the method disclosed by Kusuyama *et al.* is a choice within the ordinary skill in the art in view of such concerns as manufacturing expediency and the like. The surfaces of the individual fiber plates **12**, **14**, **16** are polished (page 4, lines 17-25).

Allowable Subject Matter

12. Claims 21, 23, 24, 32, 34, and 35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

13. The following is a statement of reasons for the indication of allowable subject matter: the applied references do not suggest pixels of different widths, positioning the gap atop effective pixels or positioning the joint line at some angle within the recited range.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kusuyama *et al.* (US20020005489A1) is considered to correspond at least in part to the applied WIPO document.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Constantine Hannaher whose telephone number is (703) 308-4850. The examiner can normally be reached on Monday-Friday with flexible hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David P. Porta can be reached on (703) 308-4852. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

ch
May 6, 2003

Constantine Hannaher